



Cargill@150



Listening. Learning. Leading.

In 2015, we mark our 150th year in business. We have grown from a single grain elevator in Iowa to a company with 153,000 employees in 67 countries engaged in the essential work of nourishing people. We operate across many supply chains, balancing the diverse interests of customers and stakeholders. In the years ahead, meeting the challenges of the world's interdependent food and agriculture system will call for broad collaboration. We embrace this opportunity with a willingness to listen and learn that is essential to our company's growth and our commitment to helping the world *thrive*.

To our stakeholders



David MacLennan
President and CEO



Greg Page
Executive Chairman

Cargill is celebrating its 150th anniversary, a tribute to the commitment, optimism and resilience of its family owners and employees. Over the years, the company has experienced remarkable successes, occasional setbacks and exceptional growth. And through it all, an enduring commitment to nourishing people.

Cargill's rich history has been a catalyst for thinking about the future. We have always been a learning organization, and that is more important than ever, given the accelerating level of complexity and change in the world. With learning comes listening, and there we bring an "outside-in" view of the world to our planning and decision-making. We also know our customers and other partners expect us to lead – in supply chain management, food safety, nutrition, risk management and sustainability.

Our customers and stakeholders are asking more from us, just as we are demanding more from ourselves.

Financial performance

Cargill's financial results in fiscal 2015 did not meet expectations. The company earned \$1.58 billion, down 13 percent from last year. Sales and other revenues decreased 11 percent to \$120.4 billion. Cash flow from operations equaled \$3.82 billion.

Even in a challenging year, several of our businesses generated record earnings: global animal nutrition, Canadian farm services, Central American meats, U.S. turkey, egg further processing, food and deicing salts, industrial specialties, and trade and structured finance. We also saw solid gains in European poultry and U.S. pork, and a turnaround in petroleum. Our new joint ventures, Alvean (global sugar trading) and Ardent Mills (North American flour milling), got off to a strong start.

Segment results

Animal Nutrition & Protein posted a solid increase in profitability. The segment executed well, drawing on its global footprint, diverse products and services, and this year's lower feed input costs to generate earnings growth.

Origination & Processing results rose slightly as back-to-back years of record harvests allowed the rebuilding of global stocks, which muted price volatility and market opportunities. The segment managed an unusual market duality: In South America, farmers held their crops to wait out low prices and guard against potential currency devaluation. That reduced soybean crush volumes and exports, and caused global buyers to turn northward, which boosted results in North America.

Earnings in **Food Ingredients & Applications** decreased considerably from last year. The economic slowdown in China and other emerging markets, where many of the segment's recent capital investments have been directed, weakened results. In developed countries, consumers' rapidly evolving preferences for the foods and beverages they consume impacted sales. We are making comprehensive changes to improve profitability and reshape the portfolio for higher performance. This involves reducing costs, aligning investments and assets with projected returns, and positioning to be the innovation partner that customers choose to help them renew their product lines as they, too, respond to slower sales growth and a range of consumer preferences.

Earnings in energy rebounded, especially in petroleum. The upturn was aided by last fiscal year's restructuring and the deft management of 2014's swift and sharp drop in crude oil prices. Disappointing performance elsewhere in the segment held **Industrial & Financial Services** earnings below the year-ago level.

External events also were part of the dynamic:

- Foreign exchange markets were volatile, propelled by the appreciation of the U.S. dollar against other currencies. Many of our European- and Latin American-based businesses were negatively impacted but, based on past experience, those effects should even out over time.
- We again incurred charges against earnings due to Venezuela's revisions of its currency exchange system.
- The Russia-Ukraine conflict was costly – from the forced closure of our oilseed processing plant in Donetsk to the lost opportunities of a region in economic contraction.

Lastly, we recorded a number of one-time items related to asset impairments and other adjustments and charges.

Focus and discipline

Cargill has a history of rising to challenges. Across the company, we are focusing on five areas we believe are the most important for strengthening profitability and restoring growth:

Operate with excellence: Work is underway in our businesses to increase plant productivity, optimize supply chains and raise marketing effectiveness. This is fundamental to all that we do.

Take a common approach, where sensible:

Six Cargill-staffed shared services centers are up and running in Argentina, Brazil, Bulgaria, China, Costa Rica and India. By centralizing common work processes for human resources, information technology, finance, logistics and sourcing, we drive efficiency. And that lets our business units concentrate on customers and markets.

We continue to modernize Cargill's enterprise resource planning systems. Although we had a significant setback in one instance, we are making the necessary adjustments and moving forward to capture the benefits of integrated business information and analytics.

Invest to serve customers: This past year, we invested \$3.43 billion in capabilities and capacities important to our customers. Some of the highlights:

Capital expenditures:

25% acquisitions/joint ventures
49% new/expanded facilities
26% safety/energy/environment/other

- With rising demand for sustainable palm oil, we acquired Indonesian producer Poliplant Group.
- Interest in canola oil continues to grow. We opened a new oil refinery in Saskatchewan, followed at year-end by a new crush facility in Alberta. It sits on the 53rd parallel, the northernmost plant in Cargill's North American network.
- We invested globally in animal nutrition to support the higher demand for animal protein that comes with income growth in developing countries.

Cargill@150



153k
employees



We aspire to be the global leader in nourishing people.



\$57.9M
contributed to
communities in
57 countries
in fiscal 2015
in support of food
security, education and
the environment

- The new cocoa processing plant in Indonesia and expanded chocolate facility in Belgium both began operations. We also completed the purchase of Archer Daniels Midland's European and U.S. chocolate business in the fiscal 2016 first quarter.
- We are gradually growing our presence in sub-Saharan Africa, purchasing a grain-handling business in Kenya and soybean processing business in Zambia.
- Cargill's new sunflower seed crush plant in Russia is nearing completion.

We also made changes to the portfolio. In the U.S., we closed a corn wet mill, sold a cattle feed yard, shuttered a beef facility and consolidated three meat packaging plants into two. We sold Cargill's interests in two joint ventures: Chinese specialty ingredients and Spanish olive oil. We exited cotton in Zimbabwe due to deteriorating business conditions there.

Be the trusted partner: In every corner of the world, Cargill is fulfilling our sesquicentennial's signature: 150 years of helping the world *thrive*.

- In China, we accelerated the startup of our chicken further processing plant after a competitor's food safety scandal imperiled our customer's local supply chain.
- In compressed time frames, we achieved our goals for 100 percent group housing of sows at Cargill-owned facilities and for the removal of growth-promoting antibiotics from all Cargill turkey flocks.
- We developed custom solutions for farm, food and energy customers seeking to manage their businesses' commodity price risk.
- Working with their trade flows, we arranged financing for customers as varied as an egg supplier and an energy company.
- We created a GMO-free corn syrup – the first ever in the U.S. – to support ingredient changes in a confectionery customer's iconic brands.
- Applying years of experience, we helped food customers replace partially hydrogenated oils (the primary source of *trans* fat) in foods where fats are key to taste and texture.

We were honored to be the first recipient of Unilever's Visionary Award for our collaboration in providing a series of innovation, supply chain and sustainability solutions. In partnership with Greenpeace and McDonald's, we were pleased to accept the Keystone Policy Center's leadership award for reducing deforestation in Brazil's Amazon region.

This year also marks Cargill's adoption of a companywide sustainability strategy. We set an ambitious goal to be the most trusted source of sustainable products and services in our industry. We have

identified four areas where we can have the greatest impact across the supply chains we touch: land use (including deforestation), water use, climate change and farmer livelihoods. As we set targets and undertake actions in each of these areas, we expect to achieve positive impacts that reach far beyond the company's operations.

Tap employees' full potential: We were delighted to have Cargill named to Aon Hewitt's Top Companies for Leaders® list for 2014. Because of the rapidly changing environment, we recognize the importance of developing agile, decisive and engaging leaders who build strong teams and create inclusive environments where all employees can succeed.

Further strengthening our safety culture allowed Cargill to cross a new threshold in fiscal 2015. We attained the company's lowest rate of reportable injury (1.47 per 200,000 hours worked). Almost 74 percent of 1,425 locations worked injury-free. Our safety index fell below 1.0 (to 0.81) for the first time ever. And together we worked 257 million hours from Sept. 1 to May 7 without a fatality. Yet we suffered four fatalities over the course of the fiscal year, tragically far from our goal of zero. We are determined to reach this mark and are confident it can be done.

In closing

We want to express our pride in the Cargill team. In a year of highs and lows, our employees kept each other safe, followed the company's guiding principles and advanced our commitment to helping customers and stakeholders *thrive*.

We are a company that listens, learns and leads. We are honored to steward the legacy of preceding generations and proud to carry it forward. As we celebrate our 150th year in business, we find Cargill's purpose – to be the global leader in nourishing people – to be more essential than ever. It is our challenge and, indeed, our privilege, to help feed the world sustainably.

Sincerely,



David W. MacLennan
President and Chief Executive Officer



Gregory R. Page
Executive Chairman

Aug. 19, 2015



1934

A dust explosion and fire at Cargill's grain terminal in Omaha, Nebraska, killed three men and injured others. The investigation found the facility's unconventional design, conceived by then Cargill Vice President John MacMillan Jr., had prevented a greater loss of life. Cargill began a safety campaign, with education on grain handling and a challenge to run without accidents. The continuous improvement of workplace safety has been a cultural cornerstone ever since.

Tackling complexity

Broad challenges take collective wisdom to solve. In addressing the complexity of helping feed the world responsibly, we are seeking new perspectives and collaborative approaches that deliver wide-ranging benefits.



1948

When Cargill entered South America, it did so with an unusual partner: the International Basic Economy Corporation, a company formed by Nelson Rockefeller to raise the standard of living through business. The two created Cargill Agricola and set to work providing Brazilian farmers with grain storage, marketing options and access to rail service. Selling its interest in 1957, Cargill returned in 1965 and today celebrates 50 years in Brazil.

Securing predictable pricing

Commodity prices are impacted by a host of uncertainties, be it weather, supply and demand, or disruptive events, to name just a few. These factors cause prices to fluctuate, which creates risk – especially for a government agency responsible for purchasing, marketing and exporting its country's most important crop. That's the job of Ghana's Cocoa Marketing Company. Ghana is the second-largest producer of cocoa, accounting for about 20 percent of global output.

Prices were volatile in 2014, as concerns about the possible spread of the Ebola virus added a new worry to the market. Sensing the CMC's need for greater predictability, Cargill created a customized risk management solution that allowed the CMC to lock in an attractive price on a specified tonnage of cocoa beans and still retain the ability to benefit from upside potential. And we delivered quickly, providing a degree of certainty when it was needed most.

Producing sustainable palm oil

Keeping up with the world's appetite for palm oil means producers must expand capacity while reducing environmental impact and protecting the rights of indigenous communities. To help meet demand, Cargill acquired Poliplant Group, a palm plantation in West Kalimantan, Indonesia. We also reached out to environmental consulting firm Daemeter to help bring the plantation in line with our sustainability standards.

Daemeter is carrying out field assessments of the property's 50,000 hectares to identify any high conservation value lands that support biodiversity and high carbon stock forested areas. Both types of land

will remain off-limits for development. Their work is helping us achieve compliance with our own palm oil policy, as well as certification by the Roundtable on Sustainable Palm Oil.

Building a strong connection with the community also is a priority. At our other plantations, Cargill has helped smallholder farmers achieve RSPO certification. As a first step in strengthening ties with our new neighbors, Daemeter conducted a social impact assessment, providing valuable insights for further developing our capacity to operate responsibly.

Making food safer

Key to ensuring safe food is achieving consistency in food safety standards and processes. International exchanges can play a valuable role. Beginning in 2008, Cargill worked with China's General Administration of Quality Supervision, Inspection and Quarantine (AQSIQ) and others to bring 100 Chinese government officials to food production sites across Europe and the U.S. to share best practices. For those participants engaged in updating China's food safety regulations, the program provided insights that helped modernize the requirements for foods made for domestic consumption, as well as for import and export.

In 2014, we invited a Chinese delegation to visit Cargill's poultry facility in Anhui province to share our standards and systems for poultry production. The exchange led to a new five-year program, launched in April 2015, that focuses at a granular level on the implementation of China's food safety policies. It brings together practitioners from industry, academia and government to gain alignment. We believe this level of public-private collaboration – uncommon in China – will continue making food safer.

14 years

Exports to Cuba

Our Miami team sells grain to Cuba under humanitarian exemptions. We're leading a coalition to end the U.S. trade embargo in order to open opportunities for U.S. farmers and improve the lives of Cuba's people.



"Africa needs markets. It needs commercial marketing systems for food more than any other place on the planet. If Cargill brought its tremendous capacity to add scale, improve food production, create standards, help

develop transport and storage systems, and promote food trade across countries and economies, that would be a transformational accomplishment for the company and for the fight to end extreme poverty."

Dr. Rajiv Shah
Distinguished Fellow, Georgetown University
Former Administrator, U.S. Agency for International Development

The Keystone Policy Center honored Cargill, Greenpeace and McDonald's for their leadership in significantly reducing deforestation in the Amazon region over the past decade through the Brazilian Soy Moratorium, a voluntary zero-deforestation agreement.

"Organizations like Cargill, McDonald's and Greenpeace are demonstrating how we are better and stronger when we work together to find common higher ground."

Christine Scanlan
President and CEO, Keystone Policy Center



"At short notice, Cargill came to our assistance with a pricing structure for cocoa beans to better manage uncertainty and provide some reassurance to our farmers. They've been a reliable buyer of Ghanaian cocoa for years, making it their business to listen, understand and respond to our needs."

Edem Amegashie
Deputy Managing Director, Cocoa Marketing Company, Ltd
Ghana Cocoa Board

Anticipating change

Changes in consumer preferences, technology and markets are always inspiring our customers to create new offerings and processes. We are applying fresh thinking to drive innovation that can contribute to their success.



1942

Cargill's president, John MacMillan, Jr., and a college friend worked for three years to create a food product, dubbed "man food" that would be "absolutely adequate in itself for human nutrition." They didn't find a tasty mix, but the concept affirmed the nutritive value of protein-rich soybeans. Decades later, when an earthquake hit Haiti, Cargill donated 18 tons of soybeans to Kids Against Hunger, which provides all-in-one meals to disaster victims worldwide.

Less is more

Preserving the flavor, texture and freshness that salt delivers to food while reducing sodium is no easy task. Understanding the effects of particle size and shape – and the way sodium interacts with other ingredients – is key to getting it right. As a food company with deep understanding of the science behind salt, Cargill helps customers reduce sodium and improve performance with products that blend consistently, dissolve faster to speed production and adhere to food so less is wasted.

Our research has yielded impressive results:

- We developed a micro-fine salt that imparts the same salty taste using much less product. It allowed a global snacks company to reduce sodium in potato chips by 25 percent without including additional ingredients on its label.
- We helped a customer in Mexico reduce sodium in premium deli meats by 25 percent without compromising quality. Pairing sodium chloride (salt) with potassium chloride, a naturally occurring mineral, maintains ideal texture during slicing.
- We lowered sodium in breakfast cereal while surpassing a customer's target for "bowl life," the measurement of how long cereal flakes stay crispy in milk.

Farming seaweed deliciously

Carrageenan, a soluble fiber harvested from red seaweeds, has been used in foods for hundreds of years. It lends a creamy texture and mouthfeel without adding fat or calories, and it keeps dry ingredients like cocoa powder suspended in liquids. All of these properties make carrageenan especially popular in milk drinks and dairy applications. As demand

for this versatile ingredient grows, the availability of wild red seaweeds, which are vulnerable to weather events that disrupt the ocean floor, has become less certain. To reduce the sourcing risk, Cargill developed a new family of carrageenans made from farmed seaweeds raised by smallholder farmers in Indonesia, the Philippines and Tanzania. We share best farming practices, as we also research how more varieties of seaweed can be cultivated sustainably. Customers appreciate the richness and body these natural ingredients impart to their foods, as well as the quality, safety and sustainability of the supply.

Feeding growth in aquaculture

Aquaculture plays an increasing role in meeting global demand for seafood. With more supply coming from farmed sources, producers are working to improve the productivity and sustainability of their operations. Seajoy Group, one of Latin America's largest providers of premium farmed shrimp, takes an entrepreneurial approach to meeting these goals.

Juvenile shrimp need high-protein diets to give them a healthy start, so Seajoy uses Cargill's nutrient-dense, highly digestible feed in its hatcheries. The product minimizes waste, improves water quality and yields stronger shrimp for growth ponds. Feed continues to be a critical factor in shrimp farming because it makes up the largest share of production costs. Through nutritive products and technical support, we helped Seajoy boost its feed conversion rate by more than 15 percent in 2014.

Customer requirements also play a role. To assist Seajoy in meeting demand from European customers for shrimp raised on GMO-free feeds, we specially source, trace and certify our feed ingredients, which, in turn, supports Seajoy's ability to earn customers' certification and trust.



\$5.5M

We doubled the size of our Food Innovation Center in Minnesota

to give food manufacturing and foodservice customers a state-of-the-art facility where they can work alongside our food scientists to accelerate innovation and product development cycles.

Harvard University Dining Services replaced traditional table salt in its recipes with Cargill's Diamond Crystal® Kosher Salt, cutting sodium across its menus by 30 percent. The salt's crystal structure yields flakes with greater surface area that cling better to food and have less sodium content by volume.



Sipping and snacking at sports stadiums can generate tons of waste in a single season, but there's a new game in town: replacing petroleum-based plastics with compostable cups,

straws, plates and cutlery made by packagers using Ingeo® brand resin. Derived from agricultural feedstocks such as corn, this low-carbon-footprint product is manufactured by NatureWorks, a joint venture between Cargill and Thailand's PTT Global Chemical. Along

with proper handling, Ingeo resin-based packaging makes it possible for stadiums to divert a dramatically increased percentage of their solid waste away from landfills, for an all-star result.

62%

Aquaculture's share of global fish consumption is expected to reach nearly 94 million tons, topping 60 percent, by 2030.

94mt

Aquaculture

47mt

58mt

Wild catch

Cargill's feed mills in Honduras and Nicaragua achieved Best Aquaculture Practices certification in 2015 – the first in the region – and now offer four-star, BAP-certified shrimp and tilapia feed to customers across Central America.

Building trust

People want to know more about the foods they eat: how and where crops are grown, whether animals are treated humanely and the wholesomeness of prepared foods. We are stepping up our efforts to build transparent, sustainable supply chains.



1991

Dr. Temple Grandin approached Cargill with a proposal for handling livestock more humanely. Her blueprint for how to offload, hold and move cattle to slaughter via a serpentine chute reduced animal stress and produced better beef. Cargill was the first to put her ideas into practice at its beef and pork facilities. Born with autism, Grandin today is a renowned animal scientist and source of inspiration for autistic children.

An agent for change

Our U.S. pork business began transitioning to group housing for sows 13 years ago, when questions about the use of gestation crates were relatively rare. The changeover was not simple: When mixed together, sows will establish a social order through aggressive behaviors that can lead to injuries, especially at feeding time. The fighting creates stress, making it harder for sows to become and stay pregnant.

We learned how to build and manage group housing that minimizes stress, improves health and reproductive performance, and keeps costs under control. By 2009, about half of the family-owned farms caring for Cargill-owned sows were using group housing.

As customer and public interest grew, we made an industry-leading move in 2014, committing to 100 percent group housing at our own facilities by Dec. 31, 2015. Through considerable investment and training, we achieved our goal nearly a year ahead of schedule, distinguishing the business as a pacesetter in its industry.

Raising healthy animals

The use of antibiotics in livestock and poultry production is generally accepted when treating sick animals and preventing the spread of disease. Yet some have concerns about using antibiotics for growth promotion. Cargill has removed growth-promoting antibiotics from our turkey flocks, and we are exploring alternative methods for keeping animals healthy.

Ensuring animals have the right balance of microbes for a healthy gastrointestinal tract is one solution. Cargill has been studying how naturally occurring microbes interact with animals in both positive and negative ways. We have developed a tool that quickly and efficiently measures the quantity and types of bacteria present in an animal's intestine. With that insight, we can make feeding adjustments using additives, such as prebiotics, probiotics, essential oils, organic acids and enzymes, that allow an animal to counteract a population of negative bacteria.

So far, we have used this microbiological technique to test and analyze chickens and turkeys. Once perfected, the tool will help Cargill and our customers fine-tune the diets and improve the health of animals in our care.



300+

Food companies in 5 years

As a leading ingredients supplier, our food scientists help food manufacturers move away from partially hydrogenated oils (the primary source of *trans* fat) without sacrificing the taste and texture that consumers have come to love.



Tracing our palm supply

A reliable, sustainable and traceable supply of palm oil is a priority, not only for Cargill but for our customers who rely on us to help them meet their own sustainability goals. Cargill has been working with The Forest Trust since 2013 to map our palm oil supply chain. We are on track to meet our goal of providing palm oil that is 100 percent traceable to the mill by the end of 2015 and sustainable by 2020. To verify compliance, we use data obtained from mills, online satellite monitoring from Global Forest Watch, on-the-ground field assessments conducted by The Forest Trust and our own monitoring of forested land using unmanned aerial vehicles, or drones, to manage our existing environmental footprint.

"Cargill is able to reach a large number of suppliers across the broad palm oil supply chain. TFT and Cargill are organizing opportunities to walk suppliers through all the components of

Cargill's palm policy and help them understand specific issues and how to deal with them. This dialogue about the requirements of Cargill's policy helps transform the industry by clearing

up misconceptions so we can gain alignment and move ahead with clarity."

John Van't Slot
Program Manager,
North America
The Forest Trust

"We see our role as providing a critical connection between the beef producer community and our retailer customers who have insight into

what consumers are looking for. Cargill is able to bring those groups together and facilitate conversation to help improve the sustainability of the beef supply chain."

Nicole Johnson-Hoffman
Vice President,
Value-Added Meats
Cargill

"For food companies, consumer trust is the No. 1 priority. We must answer consumers' questions about where their food comes from and how it is made. Nestlé can only answer these questions by working with all upstream value chain partners, such as Cargill."

Marco Gonçalves
Chief Procurement Officer,
Nestlé

Committing to lead

Environmental change poses challenges for food and agriculture – from pressure on natural resources to a changing climate. We are accelerating actions to reduce our use of resources and advocating for measures to improve adaptation and resilience.



1926

When the *Cargill Crop Bulletin* landed on farmers' doorsteps, it brought news on grain-growing conditions and prices in North America. Published 10 times a year, it became an essential resource. Covering the Dust Bowl in 1934: "Getting pretty dry. We need rain. Drove via auto the last two days, trip of 400 miles and find the corn drying up, fired, and is done for." Changing in form and content with the times, the publication was retired in 2000.

Aiming higher

Twenty years ago, Cargill began setting five-year environment, health and safety goals. With each cycle – we just began the fifth – we aim higher, establishing targets that challenge our people and facilities, and tackle issues important to our customers and stakeholders.

For the 2010-2015 round, we exceeded all four of our energy and natural resource targets, saving \$80 million in the final year alone. Realizing our goals requires sound capital investments coupled with changes in behavior – everything from the simple tagging for repair of leaks spotted in steam pipes to the installation of combined heat and power systems or membrane bioreactors that reuse water.

For 2020, we are targeting another 5 percent improvement (from the 2015 baseline) in energy and freshwater efficiency, and in greenhouse gas intensity. And we've upped the goal for renewable

energy to 18 percent of our energy portfolio. These internal metrics are part of Cargill's larger aspiration, adopted this year, to be the most trusted source of sustainable products and services in our industry.

Protecting forests

With their capacity for storing and absorbing greenhouse gas emissions, forests play a critical role in climate change adaptation and mitigation. They also preserve biodiversity and ensure the livelihoods of more than 1 billion people. Cargill has a long track record of tackling deforestation issues, mainly in our soy and palm oil supply chains. In September 2014, we pledged to do more. At the U.N. Climate Summit in New York, Cargill joined 41 companies, 32 governments and dozens of civil society groups in a pledge to halve deforestation by 2020 and halt it by 2030. "We want to do our very best to be the trusted supplier of sustainable agricultural goods," said Cargill CEO David MacLennan. "It's the right thing to do."

Environmental performance: 2015 goals accomplished

Five-year, 5 percent targets may sound modest, but the global reach of Cargill requires us to achieve improvements at scales exceeding the annual resource consumption of some of our larg-

est businesses. For example, the 10 million gigajoules of energy saved in fiscal 2015 equates to the amount of energy used by our fourth-largest business unit over the course of a year.

Improvement in energy efficiency	5.1%
Improvement in freshwater efficiency	6.6%
Improvement in greenhouse gas intensity	7.1%



84/100

Our score on climate change disclosure evaluation

Cargill was recognized in 2014 by CDP, formerly the Carbon Disclosure Project, as the leader in the agricultural sector for activities tackling deforestation, a reflection of our work in palm oil and soy supply chains.

"Everything challenging about feeding a world on its way to 9 billion people is made more so by the potential effects of climate change. To represent agriculture's interests in climate change discussions, we are participating in the Risky Business Project, which focuses on quantifying risks that climate change may present for regions and sectors of

the U.S. economy. The project sensibly treats uncertainties presented by climate change as risks that can be managed just as businesses and governments mitigate and manage other risks. We are optimistic agriculture can adapt to changes that cannot be prevented and help mitigate changes to which it will be difficult to adapt. Honoring the principle of comparative

advantage and enabling trust-based free trade will continue to be among the best means to ensure the global food system remains resilient in the face of potential climate-related disruptions."

Greg Page
Executive Chairman,
Cargill

-25%

Our Friona, Texas, beef plant, which sits atop the huge but stressed Ogallala Aquifer, received the Texas Water Foundation's Blue Legacy Award for water conservation, having cut its water use by nearly a quarter over six years.

We use 15+ different sources of renewable energy at nearly 100 locations worldwide.

- Bagasse
- Biodiesel
- Biogas
- Cocoa shells
- Coconut shells
- Corn cobs
- Dry grass
- Green electricity
- Landfill gas
- Palm fruit fiber
- Pecan shells
- Rice husks
- Sunflower hulls
- Tallow/animal byproducts
- Vegetable oils/animal fats
- Wood and wood chips

We received a "Lean and Green Star" for reducing transportation CO₂ emissions by 20 percent over five years at our refined edible oils facilities in the Netherlands. The award is presented by Connekt Sustainable Logistics, a program supported by the Dutch Ministry of Infrastructure and Environment.



Take a Learning Journey

Today's world is too complex for any one company to answer the question of how we will feed a growing population. For a more collaborative approach, Cargill is convening emerging leaders from global organizations to explore regional food systems firsthand and spark fresh thinking.



1923

We bought an asset that was no commodity: a state-of-the-art teletype system. It transmitted messages almost instantly, at low cost, with accuracy and confidentiality. "Sending a wire" was Cargill's transmission system for 60+ years.

Fast-forward to 2015 and our Africa Learning Journey. From half-a-world away, we provided real-time updates, including blog posts, photographs and video, all uploaded to Cargill.com and further shared via Twitter and LinkedIn.

Cargill recently led a Learning Journey to Africa, home to some of the fastest-growing economies and as much as 60 percent of the world's uncultivated arable land, yet a region where one-fifth of the population remains undernourished. Representing business, academia, development agencies and the nonprofit sector, the 25 travelers saw the potential and the challenges in building value chains across South Africa and Zambia. As they met people from farm to fork, they discussed current stresses on the system and potential long-term solutions. Here, four of the participants continue the conversation.

What issues have stuck with you the most since returning from Africa?

Danielle Nierenberg: I keep thinking about the importance of farmers being at the forefront of research and development, and having a voice in decision-making. Stronger farmers' groups and cooperatives are crucial to helping farmers increase yields, protect the environment and raise their incomes.

Mercy Chen: I was surprised to see the lack of profitability of the microfinance programs and other efforts on the ground in Zambia. It calls into question whether these endeavors will be sustainable in the long term or even in the short term, regardless of whether it is benefiting the farmers.

Ashish Gupta: Like Mercy, I was surprised that despite a very high level of repayment by the farmers and high interest rates, these institutions are not currently profitable. We saw quite a few projects

being run or funded by organizations with the goal of uplifting farmers. But while these are laudable efforts, I'm not sure they are scalable in a way that will solve food security challenges. One missing ingredient seems to be a high-level synergy between the private players on one hand and the local government and village chiefs on the other, to decide on a blueprint for transformation that will move forward in a timely manner.

Bill Burke: I don't think that environmental, social and economic sustainability need be at odds. But a whole host of factors come into play on any one issue. Fertilizers are a good example. Much of the soil in sub-Saharan Africa is particularly vulnerable to rapid degradation – it's just a fact of nature, not anyone's fault. So proper soil management (replacing nutrients while avoiding over-fertilization) is more pressing there than any other part of the developing world. The typical government approach has been to subsidize inputs. But this needs to be done in a transparent way that encourages appropriate use.

In what other ways were you challenged, encouraged or surprised by what you saw and discussed on the trip?

Ashish: I knew beforehand that landownership and fragmentation of land are major challenges to agricultural productivity in Africa. However, our series of discussions with farmers and women's groups made me understand the intricate details and complexities of this issue. For me, there were two "aha!" moments that came out of these discussions: first, that village chiefs play a very influential role in the allocation of land for agriculture and thus need to be an integral part of any initiatives in this area; and second, in markets like Zambia, smallholder farming is the reality for a very large segment of agriculture, and hence we need to think of solutions within the framework of farms smaller than 10 hectares.

Mercy: Storage capacity is one of the biggest challenges for farmers in Africa. Lack of storage can force them to sell below a price they could get at a time other than harvest. And there are serious waste issues that result. When we saw that farmers are now getting access from one supplier to hermetically sealed storage bags in Chipata, I was very happy to see someone trying to give them more options and prevent loss. This isn't necessarily the most advanced technology, but it provides a practical solution to the local market.

Danielle: One of the reasons I went on this trip is to do what I say should happen in the food system—we need to break down silos and get more people, including farmers, nutritionists, policymakers, nonprofits and businesses, talking to one another. I know that organizations like mine need to stop demonizing corporations and realize that because of their tremendous power and money, we need to be talking to them. I am not saying that we'll necessarily agree, but we need to be talking—and I think it was good for Cargill and other companies who were on the trip to understand that nonprofits are not out to get them. We want many of the same things: a world where everyone is well-nourished and can have a healthy, sustainable life.

Looking at the group as a whole, what do you think were the most interesting debates during the week? What underlying issues around food systems do you think those debates pointed toward?

Danielle: I actually thought there would be more disagreement. I think we all came with different viewpoints, but we may have been too polite. I wish we could have hashed out some issues like whether encouraging farmers to focus on commodity crops and expensive inputs is the way forward for food production. Why are we forcing small-scale farmers to compete in a global marketplace against big farmers? Why isn't there more focus from companies on creating regional food systems that emphasize local resources and production of inputs, which will likely be more resilient over the long run as global population grows and the impacts of climate change become more evident?

Mercy: I think there is an issue of self-sufficiency versus international competitiveness. A lot of discussion focuses on the possibility of making Africa self-sufficient, but if the continent is not competitive against other markets, it will be hard for them to sustain this in the long run. Strong governance will be needed to improve the efficiency of the entire food supply chain, including building the infrastructure to connect local farmers and smallholders to markets, and strengthening education to empower the next generation of young farmers.

Bill: Another vigorous conversation on the trip was around genetically modified organisms, which are grown in South Africa but not Zambia. GMOs feed more people, and fortified GMOs provide more nutritious foods. Yet here, as in other areas, knowledge gaps remain, and good and honest people can and do debate the merits of GMOs. To paraphrase a colleague, if you ask people what they think about GMOs on a scale of 1 to 10, with 1 being an environmental catastrophe and 10 being able to feed everyone in the world, it seems like everybody is either a 1 or a 10. But based on my instinct, it's probably closer to a 4 or a 6. To me, that's the space where we need to be having these discussions.

As we think about the larger implications for providing enough food for more than 9 billion people globally by mid-century, what learning should Cargill take away from this trip?

Ashish: There clearly are a great variety of organizations involved in helping improve farmer livelihoods and hence food security overall. While we saw small pockets of good success stories, for this to make a significant difference in the larger food security equation, I believe a few things have to change. There needs to be greater collaboration among all of the players working on various parts of the value chain in order for them to succeed. The focus should be on addressing the major issues through a coordinated strategy that can be brought to scale, rather than creating a few examples of success. And the African people need to be at the center of owning and driving these programs. I really believe that the next two decades will be Africa's time, and Africa will overcome these challenges.

Bill: While Africa's agrarian communities face many constraints, it's not for lack of determined and hard-working individuals. The sooner that donors, governments and businesses not only realize this, but embrace it, the better off we'll all be. Africa needn't be a charity case. The proper inputs, research, training and institutional support can make this a reality. That's not to say that African agriculture should look like American, Asian or European agriculture – it almost certainly should not – but a mature African agricultural sector will be far more capable of feeding the continent than most people realize.



Bill Burke is an agricultural economist and research scholar at Stanford University's Center on Food Security and the Environment. He lived in Zambia for three years and returns regularly to conduct research.



Mercy Chen is a trader for Cargill based in Shanghai, China, specializing in cash and futures markets for vegetable oils.



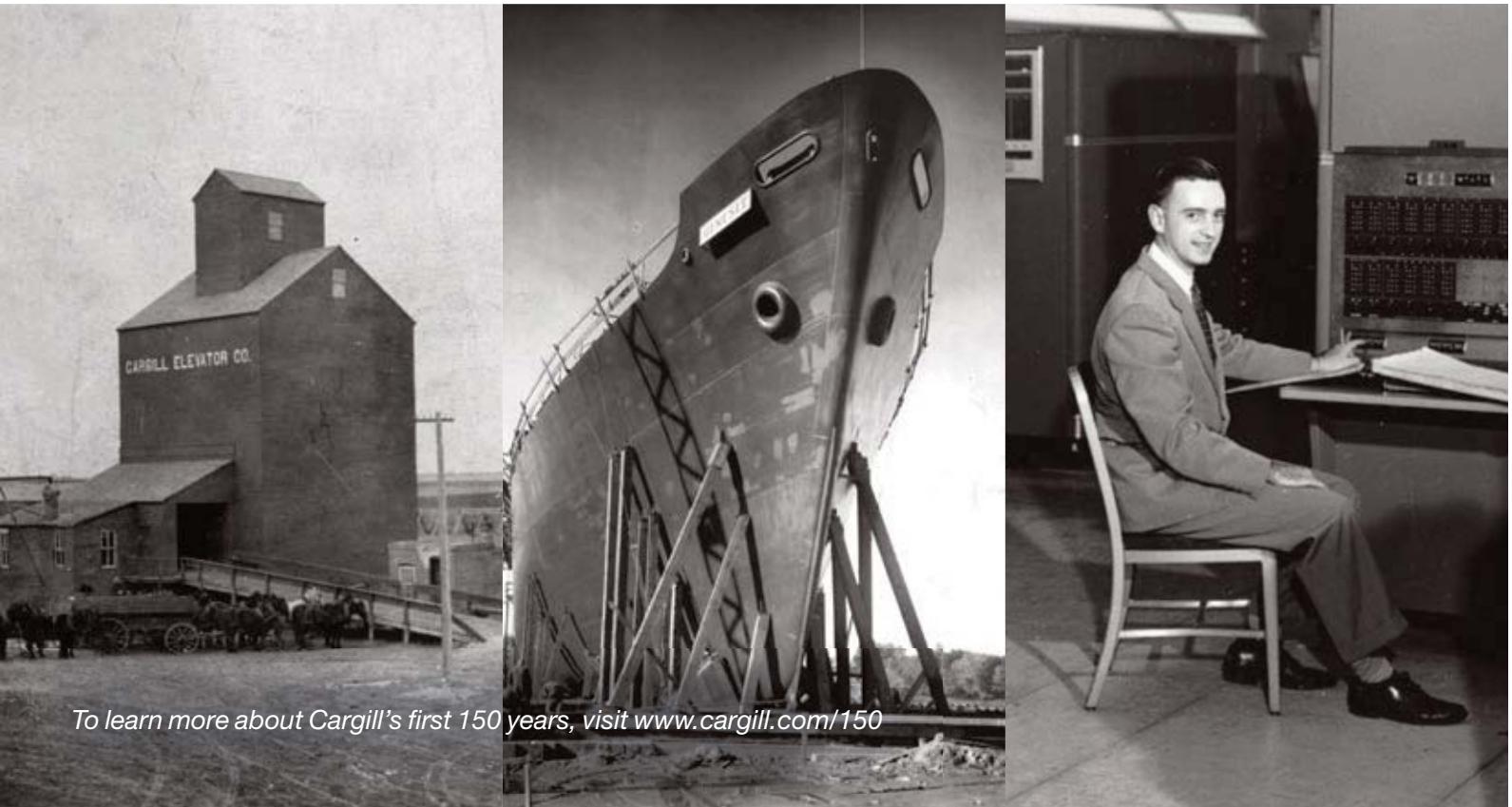
Ashish Gupta works for Unilever as procurement manager in fats and oils for geographies in Africa, the Middle East and Eastern Europe. He is based in Dubai.



Danielle Nierenberg is the founder and president of Food Tank. She has written extensively on sustainable agriculture, gender and population, and farming in the developing world.

Find more stories, photos and videos from the Africa Learning Journey at: www.cargill.com/learning-journey/africa

Cargill is committed to operating responsibly as we pursue our purpose to be the global leader in nourishing people. Our 2015 Corporate Responsibility Report is available online at www.cargill.com.



To learn more about Cargill's first 150 years, visit www.cargill.com/150

Cargill provides food, agriculture, financial and industrial products and services to the world. Together with farmers, customers, governments and communities, we help people thrive by applying our insights and 150 years of experience. We have 153,000 employees in 67 countries who are committed to feeding the world in a responsible way, reducing environmental impact and improving the communities where we live and work. For more information, visit www.cargill.com and our News Center.